

CERTIFICATE OF ANALYSIS

ISO/IEC 17025:2017 ACCREDITATION #103104



Order #: 39024
Order Name: Charlotte-B19-204-03
Batch#: Order-101819
Received: 10/21/2019
Completed: 10/25/2019



Bluhen Botanicals
220 W Jackson Ave, Suite 106
Knoxville TN, 37902
(928) 300-4099
info@bluhenbotanicals.com



Sample



0.025%
D9-THC

15.109%
Total CBD

Cannabinoids Test

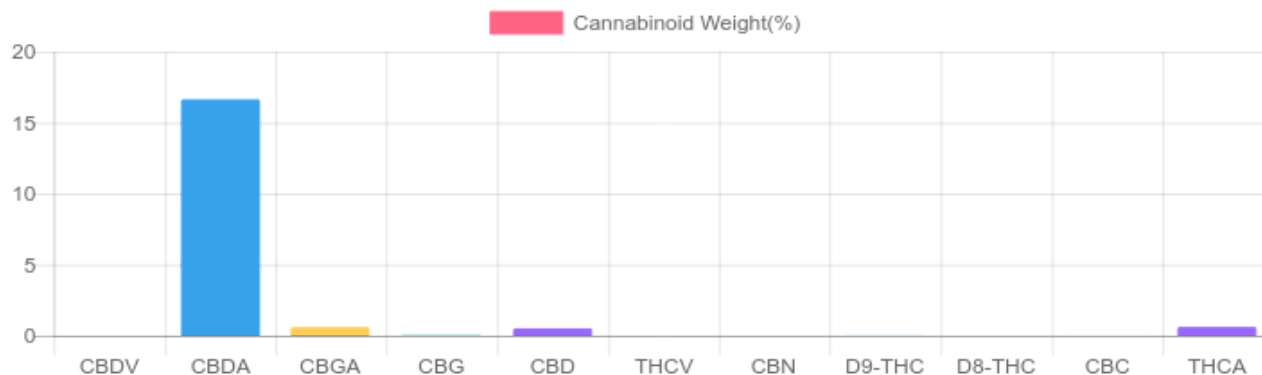
SHIMADZU INTEGRATED UPLC-PDA

GSL SOP 400

PREPARED: 10/21/2019 15:01:15

UPLOADED: 10/22/2019 12:48:29

Cannabinoids	LOQ	weight(%)	mg/g
D9-THC	10 PPM	0.025%	0.248
THCA	10 PPM	0.608%	6.080
CBD	10 PPM	0.517%	5.167
CBDA	20 PPM	16.639%	166.389
CBDV	20 PPM	N/D	N/D
CBC	10 PPM	0.018%	0.180
CBN	10 PPM	N/D	N/D
CBG	10 PPM	0.032%	0.323
CBGA	20 PPM	0.594%	5.938
D8-THC	10 PPM	N/D	N/D
THCV	10 PPM	N/D	N/D
TOTAL D9-THC		0.025%	0.025%
TOTAL CBD*		15.109%	151.090
TOTAL CANNABINOIDS		18.433%	184.325



Reporting Limit 10 ppm

*Total CBD = CBD + CBDA x 0.877

N/D - Not Detected, B/LOQ - Below Limit of Quantification



4001 SW 47th Avenue Suite 208
Davie, FL 33314
1-833-TEST-CBD
info@greenscientificlabs.com



Accreditation #103104



Dr. Andrew Hall, Ph.D., CSO & Lab Director

Green Scientific Labs uses its best efforts to deliver high quality results and to verify that the data contained therein are based on sound scientific judgment and levels listed are guidelines only and all data was reported based on standard laboratory procedures and deviations. However Green Scientific Labs makes no warranties or claims to that effect and further shall not be liable for any damage or misrepresentation that may result from the use or misuse of the data contained herein in any way. Further, Green Scientific Labs makes no claims regarding representations of the analyzed sample to the larger batch from which it was taken. Data and information in this report are intended solely for the individual(s) for whom samples were submitted and as part of our strict confidentiality policy, Green Scientific Labs can only discuss results with the original client of record.

CERTIFICATE OF ANALYSIS

ISO/IEC 17025:2017 ACCREDITATION #103104



Order #: 39024
 Order Name: Charlotte-B19-204-03
 Batch#: Order-101819
 Received: 10/21/2019
 Completed: 10/25/2019



Bluhen Botanicals
 220 W Jackson Ave, Suite 106
 Knoxville TN, 37902
 (928) 300-4099
 info@bluhenbotanicals.com



TERPENES: TOTAL (1.129%)

Headspace GCMS - Shimadzu GCMS QP2020 with HS20

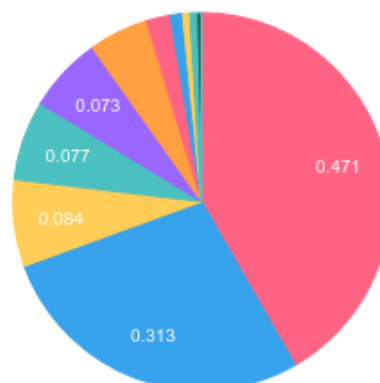
GSL SOP 404

Prepared: 10/21/2019 17:22:50

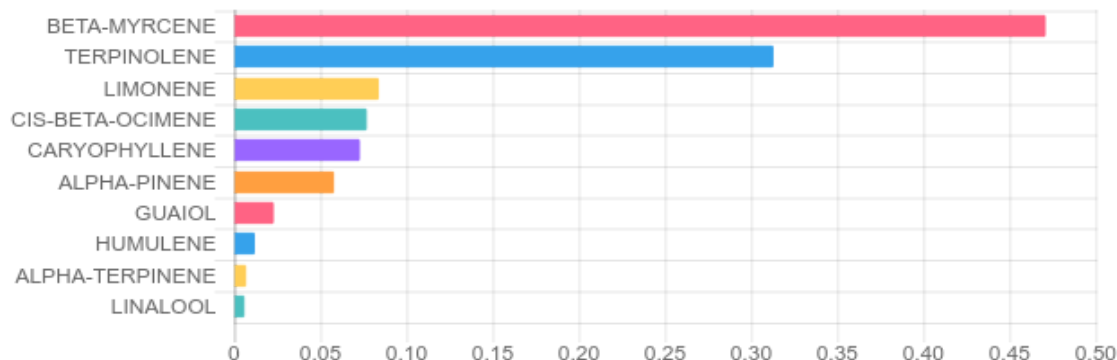
Uploaded: 10/22/2019 16:10:28

Terpene	Results (%)	LOQ (%)	LOD (%)
3-CARENE	B/LOQ	0.0067%	0.0063%
ALPHA-PINENE	0.058%	0.0067%	0.0063%
ALPHA-TERPINENE	0.007%	0.0067%	0.0063%
BETA-MYRCENE	0.471%	0.0067%	0.0063%
CARYOPHYLLENE	0.073%	0.0067%	0.0063%
CIS-BETA-OCIMENE	0.077%	0.0067%	0.0031%
GAMMA-TERPINENE	B/LOQ	0.0067%	0.0016%
GUAJOL	0.023%	0.0067%	0.0063%
HUMULENE	0.012%	0.0067%	0.0063%
LIMONENE	0.084%	0.0067%	0.0063%
LINALOOL	B/LOQ	0.0067%	0.0063%
TERPINOLENE	0.313%	0.0067%	0.0063%

Terpenes Breakdown



Top Terpenes Results:

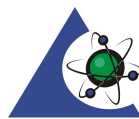


Tested for but not present:

CAMPHENE, BETA-PINENE, TRANS-BETA-OCIMENE, P-CYMENE, EUCALYPTOL, ISOPULEGOL, GERANIOL, CIS-NEROLIDOL, TRANS-NEROLIDOL, CARYOPHYLLENE OXIDE, ALPHA-BISABOOL



4001 SW 47th Avenue Suite 208
 Davie, FL 33314
 1-833-TEST-CBD
 info@greenscientificlabs.com



Accreditation #103104



Dr. Andrew Hall

Dr. Andrew Hall, Ph.D., CSO & Lab Director

Green Scientific Labs uses its best efforts to deliver high quality results and to verify that the data contained therein are based on sound scientific judgment and levels listed are guidelines only and all data was reported based on standard laboratory procedures and deviations. However Green Scientific Labs makes no warranties or claims to that effect and further shall not be liable for any damage or misrepresentation that may result from the use or misuse of the data contained herein in any way. Further, Green Scientific Labs makes no claims regarding representations of the analyzed sample to the larger batch from which it was taken. Data and information in this report are intended solely for the individual(s) for whom samples were submitted and as part of our strict confidentiality policy, Green Scientific Labs can only discuss results with the original client of record.

CERTIFICATE OF ANALYSIS

ISO/IEC 17025:2017 ACCREDITATION #103104



Order #: 39024
 Order Name: Charlotte-B19-204-03
 Batch#: Order-101819
 Received: 10/21/2019
 Completed: 10/25/2019



Bluhen Botanicals
 220 W Jackson Ave, Suite 106
 Knoxville TN, 37902
 (928) 300-4099
 info@bluhenbotanicals.com



PESTICIDE ANALYSIS:

GSL SOP 401

PREPARED: 10/22/2019 17:55:33

UPLOADED: 10/24/2019 13:30:55

GCMS-MS - Shimadzu GCMS-TQ8040

Pesticide	Action Level (ppm)	Results (ppm)	LOQ (ppm)	LOD (ppm)
CAPTAN	0.700	N/D	0.003	0.001
CHLORDANE	0.100	0.584	0.003	0.001
CHLORFENAPYR	0.100	N/D	0.003	0.001
COUMAPHOS	0.100	N/D	0.003	0.001

Pesticide	Action Level (ppm)	Results (ppm)	LOQ (ppm)	LOD (ppm)
CYFLUTHRIN	2.000	N/D	0.003	0.001
CYPERMETHRIN	1.000	N/D	0.003	0.001
PARATHION-METHYL	0.100	N/D	0.003	0.001
PENTACHLORONITROBENZENE	0.100	N/D	0.003	0.001

LCMS-MS - Shimadzu LCMS-8060

Pesticide	Action Level (ppm)	Results (ppm)	LOQ (ppm)	LOD (ppm)
ABAMECTIN B1A	0.100	N/D	0.005	0.001
ACEPHATE	0.100	N/D	0.001	0.001
ACEQUINOCYL	0.100	N/D	0.001	0.001
ACETAMIPRID	0.100	N/D	0.005	0.001
ALDICARB	0.100	N/D	0.005	0.001
AZOXYSTROBIN	0.100	N/D	0.001	0.001
BIFENAZATE	0.100	N/D	0.005	0.001
BIFENTHRIN	3.000	N/D	0.005	0.001
BOSCALID	0.100	N/D	0.005	0.001
CARBARYL	0.500	N/D	0.003	0.001
CARBOFURAN	0.100	N/D	0.001	0.001
CHLORANTRANILIPROLE	10.000	N/D	0.005	0.005
CHLORPYRIFOS	0.100	N/D	0.001	0.001
CLOFENTEZINE	0.100	N/D	0.001	0.001
DAMINOZIDE	0.100	N/D	0.005	0.001
DIAZANON	0.100	N/D	0.001	0.001
DICHLORVOS	0.100	N/D	0.005	0.001
DIMETHOATE	0.100	N/D	0.001	0.001
DIMETHOMORPH	2.000	N/D	0.005	0.001
ETHOPROPHOS	0.100	N/D	0.001	0.001
ETOFENPROX	0.100	N/D	0.001	0.001
ETOXAZOLE	0.100	N/D	0.010	0.005
FENHEXAMID	0.100	N/D	0.005	0.001
FENOXYCARB	0.100	N/D	0.005	0.001
FENPYROXIMATE	0.100	N/D	0.001	0.001
FIPRONIL	0.100	N/D	0.003	0.001
FLONICAMID	0.100	N/D	0.025	0.010
FLUDIOXONIL	0.100	N/D	0.003	0.001
HEXYTHIAZOX	0.100	N/D	0.005	0.001

Pesticide	Action Level (ppm)	Results (ppm)	LOQ (ppm)	LOD (ppm)
IMAZALIL	0.100	N/D	0.005	0.001
IMIDACLOPRID	5.000	N/D	0.005	0.001
KRESOXIM-METHYL	0.100	N/D	0.010	0.005
MALATHION	0.500	N/D	0.005	0.001
METALAXYL	2.000	N/D	0.001	0.001
METHIOCARB	0.100	N/D	0.005	0.001
METHOMYL	1.000	N/D	0.001	0.001
MEVINPHOS	0.100	N/D	0.001	0.001
MYCLOBUTANIL	0.100	N/D	0.005	0.001
NALED	0.100	N/D	0.005	0.001
OXAMYL	0.500	N/D	0.001	0.001
PACLOBUTRAZOL	0.100	N/D	0.005	0.001
PERMETHRINS	0.500	0.100	0.005	0.001
PHOSMET	0.100	N/D	0.005	0.001
PIPERONYL	3.000	N/D	0.001	0.001
BUTOXIDE				
PRALLETHRIN	0.100	N/D	0.005	0.005
PROPICONAZOLE	0.100	N/D	0.010	0.005
PROPOXUR	0.100	N/D	0.001	0.001
PYRETHRINS				
(PYRETHRIN I)	0.500	N/D	0.005	0.005
PYRIDABEN	0.100	N/D	0.005	0.001
SPINETORAM	0.100	N/D	0.001	0.001
SPINOSAD	0.100	N/D	0.001	0.001
SPIROMESIFEN	0.100	6.461	0.005	0.001
SPIROTETRAMAT	0.100	N/D	0.001	0.001
SPIROXAMINE	0.100	N/D	0.001	0.001
TEBUCONAZOLE	0.100	N/D	0.005	0.001
THIACLOPRID	0.100	N/D	0.001	0.001
THIAMETHOXAM	5.000	N/D	0.001	0.001
TRIFLOXYSTROBIN	0.100	N/D	0.001	0.001

N/D = Not Detected, A/LOQ = Above LOQ Level, B/LOQ = Below LOQ Level, B/LOD = Below LOD Level



4001 SW 47th Avenue Suite 208
 Davie, FL 33314
 1-833-TEST-CBD
 info@greenscientificlabs.com



Dr. Andrew Hall, Ph.D., CSO & Lab Director

Green Scientific Labs uses its best efforts to deliver high quality results and to verify that the data contained therein are based on sound scientific judgment and levels listed are guidelines only and all data was reported based on standard laboratory procedures and deviations. However Green Scientific Labs makes no warranties or claims to that effect and further shall not be liable for any damage or misrepresentation that may result from the use or misuse of the data contained herein in any way. Further, Green Scientific Labs makes no claims regarding representations of the analyzed sample to the larger batch from which it was taken. Data and information in this report are intended solely for the individual(s) for whom samples were submitted and as part of our strict confidentiality policy, Green Scientific Labs can only discuss results with the original client of record.

CERTIFICATE OF ANALYSIS

ISO/IEC 17025:2017 ACCREDITATION #103104



Order #: 39024
 Order Name: Charlotte-B19-204-03
 Batch#: Order-101819
 Received: 10/21/2019
 Completed: 10/25/2019



Bluhen Botanicals
 220 W Jackson Ave, Suite 106
 Knoxville TN, 37902
 (928) 300-4099
 info@bluhenbotanicals.com



Microbial Analysis:

Microbial Analysis GSL SOP 406

Uploaded: 10/24/2019 09:40:21

PCR - Agilent AriaMX

Test	Test Method Used	Device Used	LOD	Allowable Criteria	Actual Result	Pass/Fail
STEC E.COLI*	USP 61/62†	ARIAMX PCR	2 COPIES OF DNA	PRESENCE / ABSENT	BELOW LOD	PASS
SALMONELLA*	USP 61/62†	ARIAMX PCR	5 COPIES OF DNA	PRESENCE / ABSENT	BELOW LOD	PASS
YEAST AND MOLD	USP 61/62†	ARIAMX PCR	0.0857 CFU/G**	10,000	BELOW THRESHOLD	PASS

† USP 61 (enumeration of bacteria TAC, TYM, and ENT/Coliform), USP 62 (identifying specific species E.coli Aspergillus etc)

* STEC and Salmonella run as Multiplex

** CFU/g Calculation based on Select Category Type Gummy MIP/Extract Flower matrix



4001 SW 47th Avenue Suite 208
 Davie, FL 33314
 1-833-TEST-CBD
 info@greenscientificlabs.com



Dr. Andrew Hall, Ph.D., CSO & Lab Director

Green Scientific Labs uses its best efforts to deliver high quality results and to verify that the data contained therein are based on sound scientific judgment and levels listed are guidelines only and all data was reported based on standard laboratory procedures and deviations. However Green Scientific Labs makes no warranties or claims to that effect and further shall not be liable for any damage or misrepresentation that may result from the use or misuse of the data contained herein in any way. Further, Green Scientific Labs makes no claims regarding representations of the analyzed sample to the larger batch from which it was taken. Data and information in this report are intended solely for the individual(s) for whom samples were submitted and as part of our strict confidentiality policy, Green Scientific Labs can only discuss results with the original client of record.

CERTIFICATE OF ANALYSIS

ISO/IEC 17025:2017 ACCREDITATION #103104



Order #: 39024
Order Name: Charlotte-B19-204-03
Batch#: Order-101819
Received: 10/21/2019
Completed: 10/25/2019



Bluhen Botanicals
220 W Jackson Ave, Suite 106
Knoxville TN, 37902
(928) 300-4099
info@bluhenbotanicals.com



Mycotoxin Analysis:

LC-MS - Shimadzu LCMS-8060
GSL SOP 401

Uploaded: 10/24/2019 13:30:55

Analyte	Action Lvl (ppb)	Results (ppb)
AFLATOXIN B1	20	N/D
AFLATOXIN B2	20	N/D
AFLATOXIN G1	20	N/D
AFLATOXIN G2	20	N/D
OCHRATOXIN A	20	N/D

LOQ is 4ppb, LOD is 1ppb

Heavy Metals Analysis:

ICP-MS - Shimadzu ICPMS-2030
GSL SOP 403

Uploaded: 10/22/2019 17:16:39

Metal	Action Level (ppb)	Result (ppb)
ARSENIC (AS)	200	B/LOQ
CADMIUM (CD)	200	B/LOQ
MERCURY (HG)	100	B/LOQ
LEAD (PB)	500	B/LOQ

Lower Limit of Quantitation (LOQ) is 75 ppb



4001 SW 47th Avenue Suite 208
Davie, FL 33314
1-833-TEST-CBD
info@greenscientificlabs.com



Dr. Andrew Hall, Ph.D., CSO & Lab Director

Green Scientific Labs uses its best efforts to deliver high quality results and to verify that the data contained therein are based on sound scientific judgment and levels listed are guidelines only and all data was reported based on standard laboratory procedures and deviations. However Green Scientific Labs makes no warranties or claims to that effect and further shall not be liable for any damage or misrepresentation that may result from the use or misuse of the data contained herein in any way. Further, Green Scientific Labs makes no claims regarding representations of the analyzed sample to the larger batch from which it was taken. Data and information in this report are intended solely for the individual(s) for whom samples were submitted and as part of our strict confidentiality policy, Green Scientific Labs can only discuss results with the original client of record.